Access D8# 6 4800

# SEARCH REQUEST FORM Scientific and Technical Information Center

Ocionine and recime	a. Milliana Contor	(-10)
Requester's Full Name: Hnowy Laufer	Examiner#:	Date: 4-16-02
Art Unit: 2100 Phone Number: 30	Serial Number: 101021-	183
Mail Box and Bldg/Room Location:	_ Results Format Preferred (circle):	Paper Disk E-mail
If more than one search is submitted, please prioritia	ze searches in order of need.	*******
Please provide a detailed statement of the search topic, and describe as species or structures, keywords, synonyms, acronyms, and registry numbers terms that may have a special meaning. Give examples or relevant citations pertinent claims, and abstract.	s, and combine with the concept or utility of	the invention. Define any
Title of Invention:	4.3-9	
Inventors (please provide full names):		
Earliest Priority Filing Date:		
*For Sequence Searches Only* Please include all pertinent information (pa appropriate serial number.	arent, child, divisional, or issued patent num	bers) along with the
	0,105,030	·
·		

STAFF USE ONLY	Type of search	Vendors and cost where applicable
Searcher: Steen	NA Sequence (#)	STN
Searcher Phone: 6-4767	AA Sequence (#)	Dialog
Searcher Location: 4840	Structure (#)	Questel/Orbit 26.41
Date Searcher Picked Up: 4-19-07	Bibliographic	Dr. Link
Date Completed: 4-18-02	Litigation	Lexis/Nexis
Searcher Prep & Review Time:	Full Text	Sequence System
Clerical Prep Time:	Patent Family	www/Internet
Online Time:	Other	Other (specify)

# Green, Shirelle

From:

Laufer, Pinchus

Sent:

Tuesday, April 16, 2002 9:49 AM

To: Subject: Green, Shirelle Litigation searches

Please generate litigation searches for the following cases:

(1) 10/020,425

(2) 10/020,427

(3) 10/017,973

(4) 10/017,965

each of which is a Reissue of US patent 5,761,301 Inventors: Oshima et al.

(5) 09/972,707

Reissue of US patent no. 5,961,621

Inventors: William Cupertino et al.

(6) 09/990,327

Reissue of US patent no. 5,991,749

Inventors: Paul H. Morrill

(7) 09/932,284

Reissue of US patent no. 5,935,201

Inventors: Raffaele Costa et al.

(6) 10/021,783

Reissue of US patent no. 6,105,030

Inventors: Nadeem Syed et al.

Thank you,

Pinchus

Pinchus M. Laufer, Ph.D. Special Programs Examiner, Technology Center 2100 Computer Architecture, Software, & Electronic Commerce US Patent and Trademark Office (703) 306-4160 plaufer@uspto.gov

#### 1 of 3 DOCUMENTS

## 6,105,030

#### GET 1st DRAWING SHEET OF 10

Aug. 15, 2000

Method and apparatus for copying data that resides in a database

REISSUE:

Reissue Application filed Dec. 13, 2001 (O.G. Apr. 9, 2002) Ex. Gp.: 2171; Re. S.N. 10/021,783

INVENTOR:

Syed, Nadeem, Castro Valley, California Robson, Kurt, Foster City, California

ASSIGNEE-AT-ISSUE:

Oracle Corporation, Redwood Shores, California (02)

APPL-NO:

32,095

FILED:

Feb. 27, 1998

INT-CL:

[7] G06F 17#30

US-CL:

707#10; 707#2

SEARCH-FLD:

707#1-10, 100-104, 200-206, 500-542; 705#1-11

PRIM-EXMR:

Ho, Ruay Lian

LEGAL-REP:

McDermott, Will & Emery

SUM:

FIELD OF THE INVENTION

The present invention relates to the copying of data and more specifically to producing a copy of data that resides in a database.

BACKGROUND OF THE INVENTION

LEXIS-NEXIS
Library: PATENT
File: ALL

Planning software is used by manufacturers to aid in the manufacturing process. Based upon the desired product output and the components needed for each product, the planning software generates a schedule of what components need to be manufactured and by when, and what materials need to be procured and by when. This schedule is generated based upon data stored in a database. The planning process is often complicated and, for complex products, can take many hours to complete.

A typical requirement imposed by the planning software is that it needs to do its processing based on a single consistent version of the database. If one process of the planning software is reading one version of the database while another process is reading an updated version of the database, serious errors, such as double counting, can occur. As a result, planning software requires that data be provided from a single frozen version of the database in order to operate properly.

As is well known, a database or a selected subset thereof can be frozen by obtaining exclusive locks on all of the tables in the database or the selective subset. Once locked, the tables can be processed by the planning software to carry out the planning process. However, as noted above, the planning process can take many hours to complete. Many companies, especially those having offices around the world, cannot afford to lock their tables for extended periods of time. Hence, locking tables in this manner is often not a viable solution.

Another possible solution is to simply make a copy of the database prior to running the planning software. The problem with this solution is that for large databases, the copying process itself can take several hours. During this time, the tables need to be locked to ensure a frozen state. As long as the tables are locked, no updates can be made. Hence, this solution suffers from the same shortcomings, albeit to a lesser degree, as the locking solution.

Based on the foregoing, it is clearly desirable to provide a mechanism for obtaining a single frozen version of the database, or a subset thereof, without locking tables in the database for an extended period of time.

## SUMMARY OF THE INVENTION

According to one aspect of the invention, a method and apparatus for supplying a consistent set of data to a software application is provided.

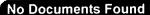
According to the method, a software application is launched that requires a particular set of data contained in a first database. Once the particular set of data is identified, a first process is requested to obtain a snapshot time from a database server associated with the first database. The snapshot time causes all subsequent reads of the first database by the first process to return data that reflects a database state associated with the snapshot time. After the first process obtains the snapshot time, the first process extracts the particular set of data from the first database. The software application is then supplied with the particular set of data that was extracted from the first database.

In one embodiment, a second process is used to store the particular set of data that was extracted into a second database.

According to another aspect of the invention, a method and apparatus for producing a copy of data from a first database is provided.

According to the method, a first set of data in the first database is locked. After locking the first set of data, a plurality of processes are requested to obtain snapshot times from a database server associated with said first database. The snapshot times cause all subsequent reads of the first database by the plurality of processes to return data from the first database as of the snapshot times. After waiting a particular period of time for the plurality of processes to be assigned snapshot times, the locks on the first set of data in the first database are released.

The plurality of processes that were successful in obtaining a snapshot time within the particular period of time are used to extract a copy of the first set of data from the first database. The copy of the first set of data is then separately stored from the first of data.



No documents were found for your search (6105030 or 6,105,030). Please edit your search and try again. You may want to try one or more of the following:

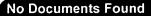
- · Check for spelling errors.
- Remove some search terms.
  Use more common search terms.
  If applicable, look for all dates.

Edit Search

About LexisNexis | Terms and Conditions

Copyright © 2002 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

LEXIS-NEXIS Library: PATENT CASES File:



No documents were found for your search (6105030 or 6,105,030). Please edit your search and try again. You may want to try one or more of the following:

- · Check for spelling errors.
- Remove some search terms.
- Use more common search terms.
- If applicable, look for all dates.

Edit Search

About LexisNexis | Terms and Conditions

Copyright © 2002 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

LEXIS-NEXIS
Library: PATENT
File: JNLS

?us6105030/pn

\*\* SS 5: Results 1 Search statement ?prt full nonstop legalall 1/1 PLUSPAT - (C) QUESTEL-ORBIT - US6105030 A 20000815 [US6105030] - (A) Method and apparatus for copying data that resides in a database PA - (A) ORACLE CORP (US) IN - (A) SYED NADEEM (US); ROBSON KURT (US) AP - US3209598 19980227 [1998US-0032095] PR - US3209598 19980227 [1998US-0032095] IC - (A) G06F-017/30PCL - ORIGINAL (O): 707010000; CROSS-REFERENCE (X): 707002000 DT - Basic CT - US5168444; US5560005; US5724575 STG - (A) United States patent - A consistent set of data is supplied to a software application from databases. When a particular set of data is identified, a first process is requested to obtain a snapshot time from a database server associated with the first database. The snapshot time causes all subsequent reads of the first database by the first process to return data that reflects a database state associated with the snapshot time. A first set of data in the first database is locked in order to produce a copy of data from a first database. After locking the first set of data, a plurality of processes are requested to obtain snapshot times from a database server associated with the first database. The snapshot times cause all subsequent reads of the first database by the plurality of processes to return data from the first database as of the snapshot times. UP - 2000-35 1/1 LGST - (C) LEGSTAT PN - US 6105030 [US6105030] AP - US 32095/98 19980227 [1998US-0032095] DT - US-P ACT - 19980227 US/AE-A APPLICATION DATA (PATENT) {US 32095/98 19980227 [1998US-0032095]} - 20000815 US/A PATENT UP - 2000-36 1/1 CRXX - (C) CLAIMS/RRX PN - 6,105,030 A 20000815 [US6105030] PA - Oracle Corp ACT - 20011213 REISSUE REQUESTED ISSUE DATE OF O.G.: 20020409 REISSUE REQUEST NUMBER: 10/021783 EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2171

Reissue Patent Number:

1/1 PAST - (C) PAST

AN - 200215-001694 PN - 6105030 A [US6105030] OG - 2002-04-09

ACT - REISSUE APPLICATION FILED

1

## fam us6105030/pn

```
1 Patent Groups
 ** SS 6: Results 1
 Search statement
?famstate nonstop
 1/1 INPADOC - (C) INPADOC
 PN - US 6105030 A 20000815 [US6105030]
 TI - METHOD AND APPARATUS FOR COPYING DATA THAT RESIDES IN A DATABASE
 IN - SYED NADEEM [US]; ROBSON KURT [US]
 PA - ORACLE CORP [US]
 AP - US 32095/98-A 19980227 [1998US-0032095]
 PR - US 32095/98-A 19980227 [1998US-0032095]
 IC - G06F-017/30
 1/1 LEGALI - (C) LEGSTAT
 PN - US 6105030 [US6105030]
 AP - US 32095/98 19980227 [1998US-0032095]
 DT - US-P
 ACTE- 19980227 US/AE-A
       APPLICATION DATA (PATENT)
       {US 32095/98 19980227 [1998US-0032095]}
     - 20000815 US/A
       PATENT
 UP - 2000-36
```